ELECTRICAL COMMUNICATION INDEX VOLUME 52 (1977)

Subject Index

	Number	Page
Active filters for Channel Translating Equipment, R. Thimm	2	130
Aging Investigations of Polyethylene Insulated Telephone Cables, K. Grill	1	80
Analog SPC and PCM-IST Telephone Networks, Economic Comparison of the Evolution of, L. Mack and G. Robin	1	28
Analytic Study of Feedback Effects on Processor Traffic in SPC Systems, E. Jensen, M. J. Sanchez-Puga, and R. Haugen	4	303
Anticollision Warning System, Radar, for Road Vehicles, D. zur Heiden and H. Oehlen	2	141
Automatic Control of Track-Bound Vehicles, H. Uebel	4	279
Award: ITT Pioneer is First Recipient of Major Engineering Award	2	157
Baseband Vocoder, Picor System: An Economical Version of the, W. Auth	3	219
Binary Phase Modulation, Pulse Compression in Radars using, J. M. Colin and J. C. Debuisser	2	152
Book Review: Microwave Circuits and Amplifiers: P. Grivet	2	106
Cables, Fiber Optic, R. E. J. Baskett and S. G. Foord	1	49
Cables, Telephone, Aging Investigations of Polyethylene Insulated, K. Grill	1	80
Channel Translating Equipment, Active Filters for, R. Thimm	2	130
Coin Telephone, NT2000, using Microprocessor Techniques, D. Adolphs	3	213
Color TV Display for Radar, G. Schmidt	2	137
Communications Systems, Optical, Repeaters for, M. Chown	3	170
Communications, Text: A New Public Telecommunications Service, B. Cramer	3	223
Compact Postal Automation Equipment	3	190
Computer Aid to Customer Engineering for Metaconta Exchanges, D. Baeckens	4	248
Computer Eliminates Directories	1	73
Contact, TIP: A New Speech Path Device, G. Zeidler and J. Potinecke	1	68
Continuous Train Control Completes Two-Year Trial	4	288
Control Simulation, Subcall-Type, of SPC Switching Systems, G. Dietrich and R. Salade	1	54
Customer Engineering for Metaconta Exchanges, Computer Aid to, D. Baeckens	4	248
Data Controlled Key System, Novakey, F. J. Howett and K. A. Saxby	4	293
Data Controlled Key Telephone System, J. H. McNeilly and J. A. Barsellotti	3	187
Data Entry System, ITT3470, J. Cabrera, I. Lopez, and R. de Ory	4	260
Data Transmission, Digital Multiplex Signals for, H. Ch. Dinglinger	1	74
Design and Application of Software for Message Switching Systems, M. T. L. Hills	2	122
Digital Data Transmission System for Fixed and Mobile Subscribers, G. Cardona, J. C. Heim, and J. Turriere	3	191
Digital Multiplex Signals for Data Transmission, H. Ch. Dinglinger	1	74
Distance Measuring Equipment: Precision DME for New Landing System: Fast or Slow Pulse? D. Graziani	4	289
Domestic Satellite System for Indonesia	2	136
Economic Comparison of the Evolution of Analog SPC and PCM-IST Telephone Networks, L. Mack and G. Robin	1	28
Economic Study Methods for the Introduction of PCM-IST in Telephone Networks, J. H. Dejean and G. Robin	1	23
Economies of Scale?, Telecommunications' Declining Costs: Technology or, L. W. Ellis	3	180
Feedback Effects on Processor Traffic in SPC Systems, Analytic Study of, E. Jensen, M. J. Sanchez-Puga, and R. Haugen	4	303
Fiber Optic Cables, R. E. J. Baskett and S. G. Foord	1	49
Fiber Optic Link Monitors Deep Sea Divers	4	298
Fiber Optic Telephone Link, World's First High Capacity	3	179
Field Trial Experience with PCM Exchanges, S. M. Schreiner, S. R. Treves, and J. Van Goethem	1	37
Field Trial of 60 Mbits^{-1} TDMA Terminal	2	125
Fixed and Mobile Subscribers, Digital Data Transmission System for, G. Cardona, J. C. Heim, and J. Turriere	3	191
Grade-of-Service and Service Quality Concepts in Public Telephone Exchanges, J. P. Dartois	4	266
Influence of Measuring Incertitude on the Testing of Products, D. Roedler	3	232
Insulated Telephone Cables, Polyethylene, Aging Investigations of, K. Grill	1	80
Integrated Letter Sorting System for South Africa	1	83
Integrated Sound and Vision Transmission System, TV-PCM 6, H. Dirks, G. Steudel, and W. Zschunke	1	62
Integrated Switching and Transmission: Economic Study Methods for the Introduction of PCM-IST in Telephone Networks, J. H. Dejean and G. Robin	1	23
Integrated Switching and Transmission: Economic Comparison of the Evolution of Analog SPC and PCM-IST Telephone Networks, L. Mack and G. Robin	1	28

	Number	Page
International Switching Symposium, 1976, ITT Contributions to the, L. A. Gimpelson	1	2
ITT Contributions to the 8th International Teletraffic Congress, J. P. Dartois	1	16
ITT Contributions to the 1976 International Switching Symposium, L. A. Gimpelson	1	2
ITT Pioneer is First Recipient of Major Engineering Award	2	157
ITT 3202 Processor, R. Bonami, T. Cagnac, and G. Yelloz	2	94
ITT 3470 Data Entry System, J. Cabrera, I. Lopez, and R. de Ory	4	260
Key System, Novakey Data Controlled, F. J. Howett and K. A. Saxby	4	293
Key Telephone System, Data Controlled, J. H. McNeilly and J. A. Barsellotti	3	187
Landing System, Precision DME for New: Fast or Slow Pulse?, D. Graziani	4	289
Letter Sorting System, Integrated, for South Africa	1	83
Magnetic Storage, Optimal Recording Methods for, W. H. Rein	3	228
Measuring Incertitude, Influence of, on the Testing of Products, D. Roedler	3	232
Message Switching Systems, Design and Application of Software for, M. T. L. Hills	2	122
Metaconta Installations, New	2	114
Metaconta System, Ten Years Field Experience with the, J. P. Dartois, A. C. Davies, J. Trelut, L. Van Os, and M. Verbeeck	2	99
Metaconta 10C Exchanges: Modern Manual Assistance Positions, M. Van den Bossche, R. Hofmans, and W. R. Mackay	2	107
Meteorological Radar, Ronsard, M. Castets	2	146
Meteosat Mission, Telecommunications Equipment for, M. Lambourg	4	299
Microprocessor Techniques, NT2000 Coin Telephone using, D. Adolphs	3	213
Microprocessors Reduce Operator Effort in New British Post Office Design	3	239
Mobile Subscribers, Digital Data Transmission System for Fixed and, G. Cardona, J. C. Heim, and J. Turriere	3	191
Modern Manual Assistance Positions, M. Van den Bossche, R. Hofmans, and W. R. Mackay	2	107
Multiplex Signals, Digital, for Data Transmission, H. Ch. Dinglinger	1	74
New Metaconta Installations	2	114
New Technologies: A Challenge for the Telecommunications Industry?, G. Zeidler	3	207
Novakey Data Controlled Key System, F. J. Howett and K. A. Saxby	4	293
NT2000 Coin Telephone using Microprocessor Techniques, D. Adolphs	3	213
Optical Communications Systems, Repeaters for, M. Chown	3	170
Optimal Recording Methods for Magnetic Storage, W. H. Rein	3	228
PCM Exchanges, Field Trial Experience with, S. M. Schreiner, S. R. Treves, and J. Van Goethem	1	37
PCM-IST in Telephone Networks, Economic Study Methods for the Introduction of, J. H. Dejean and G. Robin	1	23
PCM-IST Telephone Networks, Economic Comparison of the Evolution of Analog SPC and, L. Mack and G. Robin	1	28
PCM Transmission System, 34 Mbits^{-1}, J. V. Martens	4	254
Picor System: An Economical Version of the Baseband Vocoder, W. Auth	3	219
Polyethylene Insulated Telephone Cables, Aging Investigations of, K. Grill	1	80
Postal Automation Equipment, Compact	3	190
Precision DME for New Landing System: Fast or Slow Pulse?, D. Graziani	4	289
Processor, ITT 3202, R. Bonami, T. Cagnac, and G. Yelloz	2	94
Processor Traffic in SPC Systems, Analytic Study of Feedback Effects on, E. Jensen, M. J. Sanchez-Puga, and R. Haugen	4	303
Professor E. Kramar: A Tribute	4	278
Pulse Code Modulation (*see also* PCM): TV-PCM 6 Integrated Sound and Vision Transmission System, H. Dirks, G. Steudel, and W. Zschunke	1	62
Pulse Compression in Radars using Binary Phase Modulation, J. M. Colin and J. C. Debuisser	2	152
Radar Anticollision Warning System for Road Vehicles, D. zur Heiden and H. Oehlen	2	141
Radar, Color TV Display for, G. Schmidt	2	137
Radar, Ronsard Meteorological, M. Castets	2	146
Radars, Pulse Compression in, using Binary Phase Modulation, J. M. Colin and J. C. Debuisser	2	152
Radio Relay System for Suez Canal Region	1	15
Repeaters for Optical Communications Systems, M. Chown	3	170
Research and Development Notes	1	84
Research and Development Notes	4	312
Ringing and Tone Generator Equipment Family, G. Beszedics	2	115
Road Vehicles, Radar Anticollision Warning System for, D. zur Heiden and H. Oehlen	2	141
Ronsard Meteorological Radar, M. Castets	2	146
Satellite System, Domestic, for Indonesia	2	136
Service Quality Concepts, Grade-of-Service and, in Public Telephone Exchanges, J. P. Dartois	4	266
Software for Message Switching Systems, Design and Application of, M. T. L. Hills	2	122
Spaceborne VHF Transponder, P. Savornin	3	195
SPC Systems, Analytic Study of Feedback Effects on Processor Traffic in, E. Jensen, M. J. Sanchez-Puga, and R. Haugen	4	303

	Number	Page
SPC Systems, Traffic Calculations in, J. E. Villar	3	199
Stored Program Control (*see also* SPC):		
Economic Comparison of the Evolution of Analog SPC and PCM-IST Telephone Networks, L. Mack and G. Robin	1	28
Subcall-Type Control Simulation of SPC Switching Systems, G. Dietrich and R. Salade	1	54
Subcall-Type Control Simulation of SPC Switching Systems, G. Dietrich and R. Salade	1	54
Submarine Systems, Temperature/Attenuation Characteristics of 14 MHz, C. S. Parfree	2	126
Switching Systems, SPC, Subcall-Type Control Simulation of, G. Dietrich and R. Salade	1	54
Technological Evolution in Transmission Systems, W. Haas	4	283
Telecommunications' Declining Costs: Technology or Economies of Scale?, L. W. Ellis	3	180
Telecommunications Equipment for Meteosat Mission, M. Lambourg	4	299
Telephone Cables, Aging Investigations of Polyethylene Insulated, K. Grill	1	80
Telephone Exchanges, Grade-of-Service and Service Quality Concepts in Public, J. P. Dartois	4	266
Telephone Networks, Analog SPC and PCM-IST, Economic Comparison of the Evolution of, L. Mack and G. Robin	1	28
Telephone Networks, Economic Study Methods for the Introduction of PCM-IST in, J. H. Dejean and G. Robin	1	23
Telephone System, Data Controlled Key, J. H. McNeilly and J. A. Barsellotti	3	187
Telephony (*see also* Metaconta):		
Modern Manual Assistance Positions, M. Van den Bossche, R. Hofmans, and W. R. Mackay	2	107
Ringing and Tone Generator Equipment Family, G. Beszedics	2	115
Traffic Calculations in SPC Systems, J. E. Villar	3	199
Television: TV-PCM 6 Integrated Sound and Vision Transmission System, H. Dirks, G. Steudel, and W. Zschunke	1	62
Temperature/Attenuation Characteristics of 14 MHz Submarine Systems, C. S. Parfree	2	126
Ten Years Field Experience with the Metaconta System, J. P. Dartois, A. C. Davies, J. Trelut, L. Van Os, and M. Verbeeck	2	99
Testing of Products, Influence of Measuring Incertitude on the, D. Roedler	3	232
Text Communications: A New Public Telecommmunications Service, B. Cramer	3	223
TIP Contact: A New Speech Path Device, G. Zeidler an J. Potinecke	1	68
Tone Generator, Ringing and, Equipment Family, G. Beszedics	2	115
Trackbound Vehicles, Automatic Control of, H. Uebel	4	279
Traffic Calculations in SPC Systems, J. E. Villar	3	199
Transatlantic Traffic, Undersea Telecommunications Cable System for	1	15
Transmission System, Digital Data, for Fixed and Mobile Subscribers, G. Cardona, J. C. Heim, and J. Turriere	3	191
Transmission System, TV-PCM 6 Integrated Sound and Vision, H. Dirks, G. Steudel, and W. Zschunke	1	62
Transmission System, 34 Mbit s^{-1} PCM, J. V. Martens	4	254
Transmission Systems, Technological Evolution in, W. Haas	4	283
Transponder, Spaceborne VHF, P. Savornin	3	195
Tribute to Professor Karl Küpfmüller	3	206
TV-PCM 6 Integrated Sound and Vision Transmission System, H. Dirks, G. Steudel, and W. Zschunke	1	62
Undersea Telecommunications Cable System for Transatlantic Traffic	1	15
United States Patents Issued to ITT System:		
April–June 1976	1	92
July–September 1976	2	167
October–December 1976	3	245
January–March 1977	4	322
Vehicles, Automatic Control of Trackbound, H. Uebel	4	279
VHF Transponder, Spaceborne, P. Savornin	3	195
Vocoder, Picor System: An Economical Version of the Baseband, W. Auth	3	219
World's First High Capacity Fiber Optic Telephone Link	3	179
World's Telephones–1976	2	158
34 Mbit s^{-1} PCM Transmission System, J. V. Martens	4	254
60 Mbit s^{-1} TDMA Terminal, Field Trial of	2	125

ELECTRICAL COMMUNICATION INDEX VOLUME 52 (1977)

Author Index

	Number	Page
Adolphs, D., NT 2000 Coin Telephone using Microprocessor Techniques	3	213
Auth, W., Picor System: An Economical Version of the Baseband Vocoder	3	219
Baeckens, D., Computer Aid to Customer Engineering for Metaconta Exchanges	4	248
Barselotti, J. A. *see* McNeilly, J. H.		
Baskett, R. E. J. and Foord, S. G., Fiber Optic Cables	1	49
Beszedics, G., Ringing and Tone Generator Equipment Family	2	115
Bonami, R., Cagnac, T., and Yelloz, G., ITT 3202 Processor	2	94
Bossche, M. Van den *see* Van den Bossche, M.		
Cabrera, J., Lopez, I., and de Ory, R., ITT 3470 Data Entry System	4	260
Cagnac, T. *see* Bonami, R.		
Cardona, G., Heim, J. C., and Tuerriere, J., Digital Data Transmission System for Fixed and Mobile Subscribers	3	191
Castets, M., Ronsard Meteorological Radar	2	146
Chown, M., Repeaters for Optical Communications Systems	3	170
Colin, J. M. and Debuisser, J. C., Pulse Compression in Radars using Binary Phase Modulation	2	152
Cramer, B., Text Communications: A New Public Telecommunications Service	3	223
Dartois, J. P., Grade-of-Service and Service Quality Concepts in Public Telephone Exchanges	4	266
Dartois, J. P., ITT Contributions to the 8th International Teletraffic Congress	1	16
Dartois, J. P., Davies, A. C., Trelut, J., Van Os, L., and Verbeeck, M., Ten Years Field Experience with the Metaconta System	2	99
Davies, A. C. *see* Dartois, J. P.		
de Ory, R. *see* Cabrera, J.		
Debuisser, J. C. *see* Colin, J. M.		
Dejean, J. H. and Robin, G., Economic Study Methods for the Introduction of PCM-IST in Telephone Networks	1	23
Dietrich, G. and Salade, R., Subcall-Type Control Simulation of SPC Switching Systems	1	54
Dinglinger, H. Ch., Digital Multiplex Signals for Data Transmission	1	74
Dirks, H., Steudel, G., and Zschunke, W., TV-PCM 6 Integrated Sound and Vision Transmission System	1	62
Ellis, L. W., Telecommunications' Declining Costs: Technology or Economies of Scale?	3	180
Foord, S. G. *see* Baskett, R. E. J.		
Gimpelson, L. A., ITT Contributions to the 1976 International Switching Symposium	1	2
Goethem, J. Van *see* Schreiner, S. M.		
Graziani, D., Precision DME for New Landing System: Fast or Slow Pulse?	4	289
Grill, K., Aging Investigations of Polyethylene Insulated Telephone Cables	1	80
Haas, W., Technological Evolution in Transmission System	4	283
Haugen, R. *see* Jensen, E.		
Heim, J. C. *see* Cardona, G.		
Hills, M. T. L., Design and Application of Software for Message Switching Systems	2	122
Hofmans, R. *see* Van den Bossche, M.		
Howett, F. J. and Saxby, K. A., Novakey Data Controlled Key System	4	293
Jensen, E., Sanchez-Puga, M. J., and Haugen, R., Analytic Study of Feedback Effects on Processor Traffic in SPC Systems	4	303
Lambourg, M., Telecommunications Equipment for Meteosat Mission	4	299
Lopez, I. *see* Cabrera, J.		
Mack, L. and Robin, G., Economic Comparison of the Evolution of Analog SPC and PCM-IST Telephone Networks	1	28
Mackay, W. R. *see* Van den Bossche, M.		
Martens, J. V., 34 Mbit s^{-1} PCM Transmission System	4	254
McNeilly, J. H. and Barselotti, J. A., Data Controlled Key Telephone System	3	187
Oehlen, H. *see* zur Heiden, D.		
Parfree, C. S., Temperature/Attenuation Characteristics of 14 MHz Submarine Systems	2	126
Potinecke, J. *see* Zeidler, G.		
Rein, W. H., Optimal Recording Methods for Magnetic Storage	3	228
Robin, G. *see* Dejean, J. H. *and* Mack, L.		
Roedler, D., Influence of Measuring Incertitude on the Testing of Products	3	232
Salade, R. *see* Dietrich, G.		
Sanchez-Puga, M. J. *see* Jensen, E.		
Savornin, P., Spaceborne VHF Transponder	3	195
Saxby, K. A. *see* Howett, F. J.		
Schmidt, G., Color TV Display for Radar	2	137
Schreiner, S. M., Treves, S. R., and Van Goethem, J., Field Trial Experience with PCM Exchanges	1	37
Steudel, G. *see* Dirks, H.		
Thimm, R., Active Filters for Channel Translating Equipment	2	130
Trelut, J. *see* Dartois, J. P.		
Treves, S. R. *see* Schreiner, S. M.		
Turriere, J. *see* Cardona, G.		
Uebel, H., Automatic Control of Trackbound Vehicles	4	279
Van den Bossche, M., Hofmans, R., and Mackay, W. R., Modern Manual Assistance Positions	2	107

	Number	Page
Van Goethem, J. *see* Schreiner, S. M.		
Van Os, L. *see* Dartois, J. P.		
Verbeeck, M. *see* Dartois, J. P.		
Villar, J. E., Traffic Calculations in SPC Systems	3	199
Yelloz, G. *see* Bonami, R.		
Zeidler, G., New Technologies: A Challenge for the Telecommunications Industry?	3	207
Zeidler, G. and Potinecke, J., TIP Contact: A New Speech Path Device	1	68
Zschunke, W. *see* Dirks, H.		
zur Heiden, D. and Oehlen, H., Radar Anticollision Warning System for Road Vehicles	2	141

ELECTRICAL COMMUNICATION INDEX VOLUME 52 (1977)

Recent Achievements

	Number	Page
All Switching to Pentomat PABX'S	1	91
Alphanumeric LED Display	1	90
APL Facility for ITT 3280 VDU	3	241
Automatic Alarm Transmission System	4	318
Automatic Electroplating Line for Printed Boards	1	91
Automatic Maintenance Equipment for Pentaconta Exchanges	4	319
British Rail Expands Nationwide Telecommunications System	3	243
Communications with North Sea Oil and Gas Platforms	4	317
Computer Controlled Telex System for Insurance Group	3	241
Crossbar Tandem Switching Center	3	243
Data Collection Platforms for Meteosat	2	164
Data Transmission System 115	2	162
Demand Assignment Multiple Access Equipment	4	318
Development of Advanced Telephone Equipment	4	321
Doppler VOR Installed in Hungary and Austria	3	244
DS6 Center for Mexican Oil Company	1	91
Egyptian Telecommunications Orders	1	91
Exchange Signaling Equipment for Post Office	2	164
Extension of Pentaconta Exchanges	1	89
First in Europe with Microwave Bonded Packages	1	89
First Metaconta Exchange for Spain	4	321
First Orders for UNIMAT 4080 Electronic Telephone System	3	244
Foster-Wheeler Installs Message Switching System	4	319
Handsfree Facility for Intermat System	2	162
High Capacity Optical Fiber Cable for British Post Office	3	240
IFF Antenna	3	242
Improved Ranges of Resistors and Capacitors	2	163
ITT 3470 Data Capture Terminal	1	88
ITT 3470 System Introduced at Hanover Fair	3	240
Joint Production of Microprocessors	4	319
Loudspeaking Adaptor LA 800	1	89
Low Frequency Generator	2	166
Management Functions Integrated in Telephone Installation	3	242
Manufacture of First TXE4 A Telephone Exchange Started	4	319
Message Switching Centers for Turkish Army	1	88
Metaconta Exchange for the French Network	2	162
Metaconta L Equipment for North America	4	320
Metaconta PABX'S for Assurances Générales de France	3	241
Minesweep Cable	4	320
Miniature Printed Board Relays	2	163
More ITT 3280 VDU'S Installed	3	243
Multifrequency Signaling Unit	4	318
Multiplexer for Digital Transmission	3	242
New Airport Terminal Installs ITT Pentomat PABX	4	317
New Electronic Private Telephone System	1	88
New Terminal Controller	3	243
New Transmission Line Code Increases Telephone Call Capacity	1	91
Nuremberg EDS Switching Center Cutover	2	165
Paris Optical Conference	1	89
Pentaconta Exchange Zurich-Hottingen 1	2	166
Pentaconta Exchanges Reach New Landmarks in Spain	4	318
Private Message Switching Link Between UK and Japan	3	241
Production of Metabar Miniswitches reaches 100 000	1	90
Push Button Subsets for Netherlands	2	163
Quantity Production of EWS Equipment	3	240
Radio Link Improves Weather Information Flow	3	242
Radio Relay System FM 1800-TV/11200	2	165
Ritter Network	1	90
SELTRAC System for Short Haul Traffic Research	3	240
Setac Landing Aid Demonstrated	1	90
Solid State Memory for Telephone Exchanges	4	321
Succesful Operation of IFS Model	3	241
Telecommunications Equipment Delivered to Hong Kong	4	321
Teleconferencing System for UK	1	90
Telenote System for Edinburgh Airport	4	320
Telta Electronic Message Recording System	1	88
Temperature Compensated Crystal Oscillator	1	90
Time Division Multiplex Telegraph System 125	4	320
Toll Center for Zurich	1	89

	Number	Page
Train Control System for Speeds up to 250 kmh^{-1}	3	242
Transceivers for Police Forces	3	243
Type Approval for TXE 2 Telephone Exchange	3	241
Undersea Link for Far East	3	243
Visual Display System with Increased Flexibility and Storage	3	244
ZD 1000-C Time Division Multiplex Equipment	2	164
2nd Generation Pseudo Prom/Programming Aid	1	89
15 W DC/DC Convertor	2	163
20 kA Loadbreak Bushing Plug	4	321
34 $Mbits^{-1}$ Transmission System	3	241
132 kV Submarine Cables	2	164
300-Channel Radio Relay System FM 300/7400	4	317
500 $Mbits^{-1}$ Digital Line System	2	162

ELECTRICAL COMMUNICATION INDEX VOLUME 52 (1977)

Research and Development Notes

	Number	Page
Applications of Radar to Meteorology	1	85
Laying the Skagerrak Power Cable	1	84
Multi-address Facility for SPC Telex Exchanges	4	315
Telephone Transducers using Piezoelectric Polymer Foil	4	312